QUALITY MANAGEMENT PLAN

REVISION 2
January 2009

Submitted to:

U.S. Environmental Protection Agency
Region 5

Prepared for:
The Peoples Gas Light and Coke Company
North Shore Gas Company
130 East Randolph Drive
Chicago, Illinois 60601

Prepared By:

Burns & McDonnell
SINCE 1898
1431 Opus Place, Suite 400
Downers Grove, Illinois 60515

TABLE OF CONTENTS

ACYRONYMS AND ABBREVIATIONS

ADP ..... automated data processing

AOC ..... administrative settlement agreement and order on consent

CA ..... cost analysis

CERCLA ..... Comprehensive Environmental Response, Compensation, and Liability Act

DM ..... department manager

DQO ..... data quality objective

EE ..... engineering evaluation

FS ..... feasibility study

MGP ..... manufactured gas plant

OSC ..... on-scene coordinator

PC ..... program coordinator

PCOM ..... principal in charge/office manager

Peoples Gas ..... The Peoples Gas Light and Coke Company

QA ..... quality assurance

QAM ..... quality assurance manager

QAPP ..... Quality Assurance Project Plan

QC ..... quality control

QMP ..... Quality Management Plan

RFQ ..... request for qualifications

RI ..... remedial investigation

RPM ..... remedial project manager

SAS ..... superfund alternative sites

SOP ..... standard operating procedure

TA ..... technical advisor

USEPA ..... United States Environmental Protection Agency

QUALITY MANAGEMENT PLAN IDENTIFICATION FORM

Document Title:	Quality Management Plan	
Organization Title: Address:	Burns & McDonnell 1431 Opus Place, Suite 400 Downers Grove, Illinois 60515-1164	
Principal in Charge/ Office Manager:	Larry Milner, P.E.	Phone: (630) 724-3211 Fax: (630) 724-3201
Department Manager:	Jeffery Pope, P.E.	Phone: (630) 724-3328 Fax: (630) 724-3201
Burns & McDonnell Program Coordinator:	Margaret Kelley, P.E.	Phone: (630) 724-3282 Fax: (630) 724-3201
QA Manager:	Sharon Shelton	Phone: (816) 333-9400 Fax: (816) 333-3690

Plan Coverage and Purpose:
This Quality Management Plan (QMP) covers all of the remedial investigation(RI), risk assessment, feasibility study (FS), engineering evaluation, cost analysis, data quality assurance procedures, monitoring, and related measurements performed by Burns & McDonnell. The purpose of this document is to establish program consistency in the application of Quality Assurance (QA) practices for all environmental activities conducted during this Program. This QMP incorporates by reference the definitions from EPA QA/R-2, EPA Requirements for Quality Management Plans; March 2001.

Although the QMP is generic and applies to all work performed by Burns & McDonnell, this QMP has been specifically developed for work performed on behalf of North Shore Gas and The Peoples Gas Light and Coke Company (Peoples Gas) on the Superfund Alternate Sites (SAS) Program. As such, the organization chart and signature page contain some individuals assigned specifically to this project. Furthermore, title blocks and page header information for this specific project are included. Otherwise, the intention is to present a generic plan applicable to environmental projects.

SIGNATURE PAGE

Burns & McDonnell Concurrence:

Name: Margaret Kelley, P.E.
Title: Burns & McDonnell Program Coordinator

Signature _____ Date _____

Name: Sharon Shelton
Title: Quality Assurance Manager

Signature _____ Date _____

Burns & McDonnell Approvals for Implementation:

Name Larry Milner, P.E.
Title Principal in Charge / Office Manager

Signature _____ Date _____

Name Jeff Pope, P.E.
Title Department Manager

Signature _____ Date _____

SIGNATURE PAGE

Burns & McDonnell Concurrence:

Name: Margaret Kelley, P.E.
Title: Burns & McDonnell Program Coordinator
Signature Margaret Kelley Date 9/22/08

Name: Sharon Shelton
Title: Quality Assurance Manager
Signature SHARON SHELTON Date Sept 22 08

Burns & McDonnell Approvals for Implementation:

Name Larry Milner, P.E.
Title Principal in Charge / Office Manager
Signature Date 9-22-08

Name ~~Jeff Hope~~, P.E.
Title Department ~~Manager~~
Signature Date 9/22/08

1.0 MANAGEMENT AND ORGANIZATION

This Quality Management Plan (QMP) covers environmental worked performed by Burns & McDonnell. The purpose of this document is to establish program consistency in the application of Quality Assurance (QA) and quality control (QC) practices for all environmental activities conducted. This QMP incorporates by reference the definitions from EPA QA/R-2, EPA Requirements for Quality Management Plans; March 2001.

1.1 Statement of Burns & McDonnell Policy on Quality Assurance

As a primary Company value, Burns & McDonnell is "Quality Driven" in pursuing a mission to "make our Clients successful." The purpose of QA/QC activities is to ensure that the acceptability standards and criteria for this project and associated products are met. Requirements for the Burns & McDonnell QA/QC practices as outlined in this QMP are supported by various Company documents and standards. These documents include but are not limited to the QC Manual, Report Preparation Guide, Drafting Standards Manual, Construction Document and Specifications Manual and site-specific Quality Assurance Project Plans (QAPPs). These manuals include procedures established to monitor and document the execution of the QMP requirements, emphasizing various QC reviews of construction documents and reports. The QA part of our QMP defines and addresses specific "Quality Improvement Initiatives" to make us continually stronger both individually and as a Company. These comprise actions taken to develop training, design guides and standards, procedures, tools, and resources.

The QA/QC review process and procedures as set forth in the QMP ensures that all environmental data and work products generated and processed in connection with the requirements of the specific project or program are scientifically valid, of known precision and accuracy, of acceptable completeness and comparability, are representative, and, where appropriate, are legally defensible. Implementation of this QMP provides a commitment from Burns & McDonnell that the specific project or program will be performed in a manner that produces work products that meet or exceed expectations for quality. Through proper execution of this QMP, a high level of confidence can be placed in work products delivered. This includes all aspects of RI, risk assessment, FS, engineering evaluation, cost estimates, data quality assurance procedures, monitoring, and related measurements performed. Proper execution of this QMP will also assure that deficiencies in the quality of the work product have been minimized and that any deficiencies identified during the project have been properly corrected and all objectives have been met.

Involvement of a corporate officer (i.e., Principal in Charge/Office Manager [PCOM]) is an integral part of the QA/QC process and QMP implementation, indicating company management's commitment to the program. The corporate officer will support and advise the Project and QC Teams on quality related issues throughout the duration of the project and will assume final responsibility for the success of the project. In addition, the success the QMP requires the cooperation and determination of all concerned that the program will be made to work. To that end, day-to-day QA/QC activities for the project are overseen by the Burns & McDonnell Program Coordinator (PC) and the Quality Assurance Manager (QAM).

1.0 MANAGEMENT AND ORGANIZATION

1.2 Management Responsibilities

The Burns & McDonnell organization consists of the PCOM, Department Manager (DM), PC, QAM, Technical Advisors (TA) and Project Team to implement the project and support the Client. The PC may be different for each project.

1.2.1 Principal in Charge / Office Manager (PCOM)

The Burns & McDonnell PCOM is Mr. Larry Milner, P.E. Mr. Milner will be responsible for the following:

- Providing support to the implementation of the QMP through the allocation of corporate/office resources; and
- Performing an upper level review of the QMP for consistency with existing corporate QA/QC programs and policies.
- Providing technical assistance on QA/QC procedures, Standard Operating Procedures (SOPs) and other QMP documents and procedures

1.2.2 Department Manager (DM)

The Burns & McDonnell DM for Environmental and Remediation Services is Mr. Jeff Pope, P.E. Mr. Pope will be responsible for the following:

- Providing support to the implementation of the QMP through the allocation of department resources; and
- Providing technical assistance with the annual review, update, and revision of the QMP.

1.2.3 Burns & McDonnell Program Coordinator (Burns & McDonnell PC)

The Burns & McDonnell PC is Mrs. Margaret Kelley, P.E. The Burns & McDonnell PC reports directly to the Client. Mrs. Kelley is responsible for:

- Providing adequate resources (monetary and staff) to support the QA effort by reviewing project plans to determine time frames, funding limitations, and project staffing requirements;
- Ensuring QA is an identifiable activity with allocated resources to accomplish program goals in the development and execution of internal or external projects and tasks that involve environmentally related measurements;
- Specifying data quality requirements for environmentally related measurements for each stage of the program;
- Ensuring an adequate level of QA is performed for each stage of the program;
- Ensuring required training is available;
- Assisting the QAM in disseminating and clarifying QA responsibilities and requirements at every stage of the program implementation so they are understood;
- Establishing and implementing the QMP and QAPPs with assistance from the QAM and the project team;
- Ensuring that an annual review/audit is performed to determine compliance with QA requirements;
- Responding to any identified program QA problems and needs;
- Ensuring corrective action(s), if needed, are initiated and completed;

- Reviewing and approving SOPs developed by the QAM and/or project team for the Program;
- Implementing the DQOs as referenced in Section 2.5;
- Ensuring that contractors, subcontractors, and suppliers have a quality system consistent with EPA QA requirements; and
- Ensuring the quality of work performed or items and services provided by contractors, subcontractors, and suppliers.

1.2.4 Quality Assurance Manager (QAM)

The Burns & McDonnell QAM is Sharon Shelton. The QAM is the official contact for all intramural and extramural QA environmental activities and reports directly to the Burns & McDonnell PCOM in order to maintain an effective third party QA system. Ms. Shelton is responsible for:

- Implementing the QMP;
- Preparing and submitting the QMP, and any revisions to the QMP, to the USEPA OSC or RPM (as appropriate) via the Burns & McDonnell PC and the Client;
- Distributing the approved QMP to Program participants by means of hand delivery or mail with confirmation;
- Performing, with assistance from the Burns & McDonnell PC an annual review and update of the QMP along with revisions, if necessary;
- Preparing a letter, with Burns & McDonnell PC concurrence and signed by the PCOM, stating that the QMP has been reviewed, and is current, valid, and accurately reflects the polices of Burns & McDonnell, if no revisions to the QMP were necessary;
- Preparing a revised QMP for submittal to the USEPA OSC or RPM (as appropriate) via the Burns & McDonnell PC and the Client when there have been changes to Burns & McDonnell policies, participants, or processed defined in the QMP;
- Developing QAPPs and SOPs, as needed, for the Program and project team, for Burns & McDonnell PC and the Client to review and concurrence, and submittal to the USEPA on scene Coordinator (OSC) or RPM (as appropriate) for approval prior to the initiation of any environmental data collection;
- Initiating and completing, with assistance from the project team, of any corrective action(s) deemed necessary during the planning and implementation of the Program;
- Reviewing and approving QA-related sections of procurement packages that include or require QA measures; and
- Reviewing and approving the QA documents for contractors or subcontractors who provide services or goods that directly affect the quality of results or products from any environmental measurements made as part of the Program.

1.2.5 Technical Advisors

Technical Advisors will consist of a multi-discipline collection of upper-level personnel with extensive manufactured gas plant (MGP) and Comprehensive Environmental Response Compensation and Liability Act (CERCLA)-related experience. Technical Advisors will report to the Burns & McDonnell PC and assist with the execution of various stages of the program as necessary to accomplish the program goals associated with RI/FS, risk assessment, data QA procedures, monitoring, and environmentally related measurements performed for the Program.

Technical Advisors include Mr. Larry Milner, P.E., Mr. Tracy Cooley, RG, LG, and Mr. James Gould, P.E. Additional Technical Advisors will be incorporated in the Program, as necessary, to support implementation of and compliance with the QMP.

1.2.6 Project Team

The Project Team will consist of a multi-discipline collection of personnel (e.g. environmental scientists, geologists/hydrogeologists, engineers, toxicologists, etc.) as necessary to accomplish the program goals associated with remediation investigation, engineering evaluations/cost estimates, risk assessment, data quality assurance procedures, monitoring, and environmentally related measurements performed for the Program. The Project Team responsibilities include:

- Complying with the procedures outlined in the QMP;
- Assisting in the preparation of a QAPP and SOPs;
- Preparing planning documents and reports;
- Conducting field work;
- Reporting progress and problems to the PC and QAM;
- Participating in the corrective action process by making recommendations to the QAM and implementing corrective action(s) as outlined by the QAM;
- Reviewing and correcting their work prior to submittal to the QAM; and
- Assisting in the completion of other tasks, as directed by the PC and/or QAM.

1.3 QA/QC Commitment of Resources

1.3.1 Program QA/QC staff consists of the Burns & McDonnell PC, QAM, technical advisors, and project teams. QA/QC activities will be budgeted as a separate task/line item for the entirety of the Program. Funding will be allocated such that it is adequate for the completion of QA/QC activities during each stage of the Program implementation. Excerpts from the Burns & McDonnell web-based intranet page are included in Appendix A to show the extent of commitment to quality and the resources and procedures allocated. More specifically, excerpts cover the following:

- Pocket guide to quality control;
- Design project quality control;
- Report project quality control;
- Quality improvement program;
- Project QA/QC audits
- Quality Review Department; and
- Office Forms and templates.

1.0 MANAGEMENT AND ORGANIZATION

1.3.2 Resources necessary to accomplish implementation of the SAS Program are provided and approved by the PCOM, DM, and Burns & McDonnell PC. The QAM will discuss any quality system resource issues jointly to the Burns & McDonnell PC, Program participants, and the USEPA OSC or RPM, as appropriate.

1.3.3 Personnel that require additional environmental training and re-certifications required in association with QA/QC activities for the Program can and will obtain this training through Burns & McDonnell and other external vendors. QA/QC training requirements will be discussed in Section 3 - Personnel Qualifications and Training. Also, excerpts from the Burns & McDonnell web-based intranet page are included as in Appendix B to show an overall summary of the training and retraining available.

1.4 Burns & McDonnell Vision, Mission, Functions and Applicable Programs

At Burns & McDonnell, our primary purpose is to provide high-quality service to our clients and assign the best people to the project team. The procedures described in the QMP are an effective means of minimizing errors and omissions and misdirected efforts which must be redone. It costs less money and time to produce a quality work product. As in any program or plan involving a wide range of projects, judgment must be used in the application of the procedures outlined. The requirements for the procedures used during each stage of the SAS Program projects come from three sources:

- Client(s);
- Applicable codes, industry standards, laws, regulations, and specific project requirements; and
- Company standards and policies

The QMP program defined herein is intended to serve as a final check of work products in an effort to identify and correct mistakes, inconsistencies, or omissions prior to submittal of the work product. The processes set forth in this QMP will increase the level of quality in the work and documents produced for this project and ensure that all work products reflect good professional judgment and are as error-free as possible.

Processes described in this QMP are used to identify, mitigate, and correct technical deficiencies in field work and report documents at the earliest point. This includes identifying deficiencies and making "on-the-spot" corrections. Implementation of this QMP will provide assurance that the Project Team has implemented the work in a manner that meets or exceeds quality expectations.

1.5 Organization Chart

A management organization chart for the Program is included as Figure 1.

1.6 Assurances of Quality Program Implementation

1.6.1 All personnel associated with the program will receive a copy of the QMP. On an annual basis, all Program participants will discuss the required QA processes detailed in the QMP, to verify their accuracy and adequacy (details in Section 10 of this QMP). If any changes are deemed to be

beneficial, the QAM will initiate the proposed changes in the QMP, and initiate the approval process.

1.6.2 Once the activity discussed in Section 1.6.1 has occurred, the QAM will prepare an annual QA report that assesses the effectiveness of the QMP and QAPP. The QA report should address at a minimum the following areas:

- current status (including any) changes in QA management;
- status of the current QAPP(s) completion;
- measures of data quality from the project or program activities;
- significant quality problems (if any);
- quality accomplishments and status of corrective action(s);
- results of QA performance reviews;
- results of QA systems reviews;
- audits;
- assessments of data quality in terms of precision, accuracy, completeness, and comparability;
- Dispute resolution (if any); and
- QA-related training completed.

1.6.3 Prior to the performance of any SAS Program activities, which involve the measurement or collection of environmental data, the QAM, with assistance from Project Team, will follow a QAPP that has to be submitted and approved.

1.6.4 The QAPP, once approved, will be sent to the Program personnel and made available to the USEPA OSC or RPM.

1.6.5 Burns & McDonnell shall not initiate the proposed environmental measurements until the QAPP is approved.

1.6.6 The QAM will review and approve QA-related sections of procurement packages that include or require QA measures.

1.6.7 The QAM will review and approve the QA documents for Burns & McDonnell subcontractors who provide services or goods that directly affect the quality of results or products from any environmental measurements made as part of the Program.

1.7 Dispute Resolution

Certain responsibilities could result in disagreements between various team members or between QA and QC roles. Disputes may arise over technical issues or management issues. In general, all parties are encouraged to make every effort to resolve issues through discussion or negotiation. In general, issues should be resolved involving the lowest management level practicable.

1.0 MANAGEMENT AND ORGANIZATION

Technical disputes generally involve the multitude of technical experts within Burns & McDonnell that can objectively evaluate issues. The process of bringing in technical advisors can be informal, or formal, if necessary. Formal meetings would be well documented, and if appropriate, results and outcome can be formally documented by a technical advisor(s). Results of dispute resolution are communicated to all parties.

Burns & McDonnell has an open-door policy for all employees and does not discourage open communication at any level. As such, if management disputes cannot reasonably be resolved between the involved parties, then involved personnel always have the opportunity to voice concerns, etc. to any level of management, including top management. As with technical issues, if disputes are elevated to a more formal resolution process, the results will be documented and communicated to all involved parties.

2.0 QUALITY SYSTEM AND DESCRIPTION

2.1 The Program/Project will utilize a centralized QA system with QA oversight coming from the QAM.

2.2 In addition to the PC, the QAM has direct access to Burns & McDonnell PCOM and DM on matters as problems arise. The QAM informs the Burns & McDonnell PC of these problems (see QMP Introduction) and is responsible for related QA problem corrections.

2.3 Program/Project participants will comply with, and consider mandatory, the requirements set forth in this QMP, the requirements stipulated in any individual QAPP, and all administrative and technical procedures that are developed in response to such requirements.

2.4 A QAPP was developed for the Program/Project. The QAPP specifies detailed procedures to assure quality data for all related fieldwork or goods or services required. Requirements for QAPPs are set forth QA/R-5.

2.5 For activities that require the development of a QAPP, the Program/Project will adhere to the Data Quality Objective (DQO) process, as described by the EPA QA document titled Guidance for the Data Quality Objectives Process, EPA QA/G-4. Adherence to the DQO process is accomplished by meeting the objectives of the program as specified in the Administrative Order on Consent (AOC) for the time critical removal actions and the RI/FSs.

2.6 Burns & McDonnell has SOPs and will be using them within the Program/Project. The SOPs include QA practices specifically designed to generate and process data of known and appropriate quality in a cost-effective manner (see Section 2.7). These QA practices are the DQOs, SOPs, federal and state regulations, specific program work plans, etc.

2.7 All QA-related SOPs will be reviewed on an annual basis to ensure applicability and accurateness. SOPs will be modified and rewritten as needed. SOPs will be contained in the Field Sampling Plan (FSP) and the QAPP for the Program/Project.

2.8 The QAM will use the following tools in assessing the quality of the Program/Project:

- Reviews/audits;
- Performance evaluations; and
- Data quality assessments.

2.9 As discussed in 2.4, QAPP will be developed for the Program/Project. Guidance for preparing the QAPP is contained in EPA Requirements for Quality Assurance Project Plans (QA/R-5), dated March 2001. Further guidance pertaining to the QAPP is found on USEPA's fedfac website (www.epa.gov/fedfac/documents).

2.0 QUALITY SYSTEM AND DESCRIPTION

2.10 A single QA Status Report will be required at the conclusion of the Program/Project. The report will be submitted to the USEPA OSC or RPM (as appropriate). The report shall address the following:

- QA Management;
- completion status of the QAPP;
- measures of data quality from the project;
- significant quality problems (if any);
- quality accomplishments and status of corrective actions (if any);
- results of QA performance audits or QA systems audits;
- assessment of data quality in terms of precision, accuracy, completeness, representativeness and comparability; and
- QA-related training.

3.0 PERSONNEL QUALIFICATIONS AND TRAINING

3.1 Program participants that are involved with RI/FSs, Engineering Evaluation/Corrective Action (EE/CAs), risk assessment, data QA procedures, monitoring, and environmentally related measurements performed for the Program will fulfill the educational, work experience, and other requirements for their specific positions.

3.2 Where applicable, new Program participants that are involved with RI/FS, EE/CA, risk assessment, data QA procedures, monitoring, and environmentally related measurements will be qualified for their positions. If knowledge deficiencies are discovered, and on a routine basis regardless, training will be provided to the participant. Where internal training is not suitable, external training presented by competent professionals will be utilized.

3.3 Burns & McDonnell offers an abundance of training opportunities to the employees and strongly encourages individuals to attend in house brownbags in addition to encouraging outside training on appropriate occasions. A person on staff has been identified as the training coordinator to facilitate the training, conduct screening on possible vendors and entities offering to present, and also to evaluate if any continuing education qualifies for continuing education or professional development credits. Training records are maintained by Human Resources. Furthermore, Burns & McDonnell has an extensive library that contains thousands of books, technical journals, etc. that is available to all employees and announcements are submitted regularly identifying upgrades and new features from the library. Training procedures, course offerings, tracking devices, etc are all included in the Burns & McDonnell web-based intranet page. An excerpt from the training program is included in Appendix B.

3.4 On an annual basis, during the review of the QMP, the QAM will determine the Program participants' needs for QA training. If QA training is needed and available, the training will be scheduled as appropriate. If required by the USEPA, the Burns & McDonnell PC and the QAM will complete the QA Training provided by USEPA, as soon as practical, or within 180 days of the appointment of new staff or replacement staff to fill these positions, to include:

- Orientation to Quality Assurance Management (one day);
- Data Quality Objectives (one day); and
- QMP/QAPP Seminar (two days).

This training is available from EPA Region 5, and is normally presented several times each year in Chicago, and at locations within Region 5, at no cost.

3.5 Program participants involved in environmental field work who have not completed the USEPA QA Training will be required, prior to performing environmental field work, to either complete in-house training on QMP and QAPPs provided by the QAM (or designee) or complete training provided by a designated sub-consultant.

3.6 All QA-related training records shall be maintained and kept current by the QAM, or designee.

3.7 The qualifications of the contractor's QA Officer are identified in the respective QAPPs. The individual who has been charged with the additional responsibilities as a contractor's QA Officer must meet or exceed the qualifications as set forth in Paragraph 3.8.

3.0 PERSONNEL QUALIFICATIONS AND TRAINING

3.8 Burns & McDonnell may procure the services of subcontractors for performance of various program-related tasks. Burns & McDonnell will oversee any subcontractors that may be involved with collection or measurement of environmentally related data. In addition to the appropriate safety training, the subcontractors involved in these activities will be required to have appropriate qualifications or certifications, including working knowledge of:

- Quality Management Plans;
- Quality Assurance Project Plans; and
- Data Quality Objectives.

4.0 PROCUREMENT OF ITEMS AND SERVICES

4.1 Procurement of environmentally related services not performed by Burns & McDonnell will be through firms or organizations qualified to perform environmentally related measurements or tasks. The Burns & McDonnell web-based intranet page has extensive documentation regarding procurement procedures and policies. An excerpt from the page is included in Appendix C.

4.1.1 Procurement of large environmentally related services outside of Burns & McDonnell is often times approved by the Client either before the invitation to bid or after bids are obtained but before an award id made.

4.1.2 Procurement of services related to environmental measurements outside of Burns & McDonnell will include completion of a RFQ for providing professional consulting services. The RFQ will describe the proposed project and the Scope of Services required of the subcontractor. The subcontractor will have a limited time to respond to the RFQ, with no extensions allowable unless circumstances warrant an extension, then to be granted at the discretion of the Burns & McDonnell PC and/or the Client.

4.1.3 Burns & McDonnell has a prequalification process (implemented before retaining services or materials) which includes a review of the following:

- Safety Record;
- Registration;
- Credit (Dunn and Bradstreet);
- Technical capabilities;
- Existing work load;
- Location of the supplier; and
- Other items.

4.1.4 Any deliverable that does not meet the specification outlined in the Scope of Services shall be deemed unacceptable, rejected immediately, and returned with the appropriate documentation for corrective action and re-submittal of product that meets the requirements as outlined in the Scope of Services.

4.1.5 If the final deliverable does not meet the required specifications as outlined in the Scope of Services, the subcontractor shall receive notification from Burns & McDonnell PC or QAM as to why they failed to deliver agreed upon goods and services. If fraud or other non-lawful concerns are involved, the USEPA OSC or RPM, as appropriate, shall also receive information on the unlawful nature of the occurrence.

4.1.6 Technical reviews of the quality of services will be conducted on a continuous basis. The Program will draw upon technical expertise of Burns & McDonnell or/and its sub-consultants to review the quality of services being performed by subcontractors. The review will be conducted by qualified staff that has the expertise to examine the work that is being performed. The QAM will be responsible for obtaining the technical review. Data evaluated includes documents, activities, laboratory data, etc. The review shall verify or validate the data for correctness, adequacy, completeness, and assurance that all DQOs have been met.

4.0 PROCUREMENT OF ITEMS AND SERVICES

4.1.7 A comprehensive procurement record/file will be maintained by the Program on each program-related procurement action. All Scope of Services responses and selected subcontractors are maintained in the records file.

4.2 Any changes to procurement documents shall undergo review by the QAM to ensure adherence to the DQOs and SOPs.

4.2.1 Decisions for modifications to the procurement SOPs shall be made by the QAM in consultation with the Burns & McDonnell PC and submitted for approval to the program participants.

4.2.2 If modifications are not required, then the original process for procurement shall be repeated for items and services.

4.3 All QA/QC requirements are mandated by the respective settlement agreement and all federal requirements therein. The Scope of Services will require that Burns & McDonnell have a QAPP in place and such plan shall be included in the Work Plan. Any Burns & McDonnell subcontractors charged with the collection of environmental measurements must have an acceptable QAPP in place and/or agree to adhere to the Burns & McDonnell QAPP and Work Plan or the subcontractor will not be selected. Specific data quality validations shall be included in the Burns & McDonnell QAPP and shall adhere to appropriate guidelines and methodologies (e.g., EPA Guidelines Functional Guidelines of Data Validation.)

4.4 Examination of deliverables for acceptability is the respective responsibility of the Burns & McDonnell PC and/or the QAM. Deliverables are examined when received on a continuous basis by appropriate project participants.

5.0 DOCUMENTS AND RECORDS

This QMP exists to ensure that environmental measurements are of known and acceptable quality. QAPPs identify the goals, objectives and general responsibilities of each project and specify the detailed site-specific procedures required to assure quality data collection. The data quality is known when all parts associated with its derivation are thoroughly documented, with the documentation being verifiable and defensible. A QAPP shall be required from Burns & McDonnell and any subcontractors involved in environmentally related work. Subcontractor will be asked for copies of their QAPPs, if necessary. The subcontractors will work under Burns & McDonnell. The QAPP shall be made available to the USEPA OSC or RPM for review. The SAS Program QAM will keep a copy of the signed approved QAPP on file. All files and records will be maintained according to Burns & McDonnell records retention policies.

5.1 All data generated by the Program will be reported to the USEPA OSC or RPM as outlined in the respective AOCs. After completion of actions, the various daily, monthly, quarterly and annual reports generated from the data shall be archived in the Burns & McDonnell office for five (5) years. After five (5) years, it shall be transferred to off-site storage facilities. The Burns & McDonnell PC shall be responsible for the integrity of these records.

5.1.1 The QMP shall be reviewed on an annual basis and if any changes in the QA process have been made, a revised QMP shall pass through internal review and then be forwarded to the USEPA for the review and approval by the OSC or RPM, as appropriate. The revised QMP shall adhere to the EPA Requirements for Quality Management Plans, EPA QA/R-2, and March 2001. If there are no changes required, at a minimum, the Burns & McDonnell PC shall submit a certification letter via the Client to the USEPA OSC or RPM stating that the QMP has been reviewed, was current and accurately reflects the policies and processes of the Program. Attached to the certification letter shall be new approval pages signed by the Burns & McDonnell PC and the QAM.

5.1.2 Any documents related to environmental measurements are determined as having QA components and all records shall be retained as listed above in this Section.

5.2 All open and current data and information records shall be maintained at the desks of the specific project participants responsible for the particular action or site. All participants will be sensitive to security concerns and will take such measures needed to ensure files availability and that safety considerations adhere to any confidential business concerns. Questions as to the confidentiality of records shall be clarified by the participants as needed.

5.2.1 After each round of environmental measurements is completed, all files shall be filed in the central Burns & McDonnell files. Filing and retrieval access into the central files shall be restricted to the Program participants for security and access control purposes.

5.2.2 All records generated under the Program, with exceptions of information that may be considered "confidential business information" or "attorney-client work product" are subject to the Freedom of Information Act, 5 U.S.C. § 552, As Amended By Public Law No. 104-231, 110 Stat. 3048, and are available for review to the public upon request.

5.3 Review of all Program records is the responsibility of the QAM.

5.0 DOCUMENTS AND RECORDS

5.4 Documentation generated as a result of an USEPA settlement agreement whereby USEPA may issue an enforcement action shall be under the jurisdiction of USEPA. Computer disks are records as defined by USEPA.

5.5 All Program related records shall be recorded and maintained as stated in Section 5.1, 5.2, and 5.3. Special care shall be taken that all local and central files are secure when not in use.

5.6 Burns & McDonnell has a standardized filing system both for electronic and paper copies. Access to electronic files can be restricted. Also, procedures for archiving are in place to address projects that are closing. Several forms of back-up exist that prevent file loss and assist with file retrieval in a timely fashion.

6.0 COMPUTER HARDWARE AND SOFTWARE

6.1 Burns & McDonnell is committed to ensuring that the quality of the data required from environmentally related measures is supported by sufficient computer hardware and software resources to ensure that an adequate level of QA is performed. Electronic data on computers will be maintained by Burns & McDonnell personnel performing environmental measurements and by review of environmental data.

6.2 The Burns & McDonnell QA management policy objective is that data collected, analyzed, processed, and maintained in support of environmental activities, be accurate and of sufficient integrity to support effective environmental management. Burns & McDonnell supports this objective and adheres to the specific data processing procedures, as specified in the respective QAPP, which ensures the effective and efficient use of hardware and software.

6.3 Burns & McDonnell will require that software acquired for environmental data management during the Program will have the capability to access archived environmentally related documents. Software will be compatible to hardware purchased by the Client.

6.4 It is not anticipated that the Program will develop any independent software. All future hardware and software procured for environmental data management purposes shall be compatible with Burns & McDonnell and Client's computer systems.

6.5 Any security needed for environmental records shall incorporate a code-encrypted system and only authorized participants shall have access.

6.6 After the USEPA OSC has approved and assigned the Program QMP, a QTRAK (a USEPA computer program that contains database information on QMPs and QAPPs for the USEPA office for planning and assessment of the status of the Region 5 QMPs) number will be established and all QMP and QAPP related records shall have the QTRAK number annotated on them.

6.7 The Program QAM or a Project Team member designated by the QAM shall keep track of the QMP and any QAPPs by reviewing these documents on the computer and making updates accordingly using Microsoft Word word-processing software. This type of accessibility and quarterly tracking by the QAM will allow for efficient updates and tracking of project participants having QMP documentation and records.

6.8 No original generation of software systems shall occur. If, in the future, there is need to create an alternate data system the QMP shall be revised to reflect such change.

6.9 All software purchased in the future by the Burns & McDonnell for environmental data management shall be evaluated according to the EPA's Information Resources Management Standard. If the required software or hardware is different than the standardized procurements, working with knowledgeable staff, specific identified needs shall be defined prior to writing a Scope of Services for needs.

6.10 Burns & McDonnell has stringent programs and policies regarding computers, hardware, software, etc. Excerpts from the web-based intranet page are included in Appendix D.

7.0 PLANNING

7.1 The Burns & McDonnell PC and QAM are responsible for ensuring that QAPPs are adequate and that specific data quality goals are acceptable to the data user. The Burns & McDonnell PC is responsible for assigning responsibilities for achieving these goals. The QAM is responsible for identifying the need for revisions to the QAPP. Also, moving forward, the Uniform Federal Program (UFP) QAPP format will be used to address site-specific modifications. The QAM and PC are responsible for ensuring that the UFP format is introduced.

7.1.1 Performance objectives will be developed based on the current USEPA AOC and USEPA guidance documents, using identifiable cost and schedule constraints as guidelines. Performance results shall be measured according to Program requirements as outlined in the respective QAPP. In addition to Multi-Site documents, Site-specific QAPPs (in UFP format) will be prepared to supplement, substitute or delete any information contained in the Multi-Site document.

7.1.2 The Program must ensure that unique planning requirements for all environmentally related work are addressed and documented according to the specific work to be performed. This will be accomplished through the development of Work Plan(s) for the Sites as referenced in the appropriate AOCs.

7.1.3 In addition to requested revisions of the QMP and the QAPP documents, these documents are reviewed and revised when changes in sampling sites, sampling and/or analytical methodology, or QA procedures are made.

7.2 The Program/Project DQO planning process is driven by the Guidance for the Data Quality Objectives Process, EPA QA/G-4, February 2006, for the environmental measurements, where a QAPP is required.

7.2.1 The AOCs define the intended use of the environmental data collected. Therefore, appropriate QA measurements are defined considering the specific QA activities, the assigned level of data, and the acceptable data criteria.

7.2.2 An initial review of proposed work activities, as outlined in the Work Plan will be conducted to ensure that the quality of science is adequate to meet the desired DQOs. USEPA Project Managers use the following means to measure the performance of the Program/Project against their AOCs with the Client, Program- or site-specific Work Plan(s), and the QMP:

- semi-annual reports;
- mid-year and end-of-year assignments;
- interim reports and letters; and
- continuous communications.

7.2.3 If the Program/Project participants are made aware of critical QA needs that have not been planned for, the QAM will ensure that the identified need is addressed. The QAM will revise the QMP and the respective QAPP to ensure the data needs are recorded as required.

7.0 PLANNING

7.3 The QAPP is specifically designed to meet the environmental data required for the project. The QAPP is developed in accordance with the Program QMP data collection requirements and EPA Requirements for QA Project Plans, EPA QA/R-5 (March, 2001).

7.4 All project environmental activities are to be specifically detailed in the relative Scope of Work to ensure that cost and schedule constraints are considered prior to contract negotiations, then received, approved and accepted. Working with projected estimates of planned activities, close attention will be given to the contract budget funds to ensure costs do not exceed funds available.

7.5 The systematic planning process for environmental data collection is included in the Work Plan for a particular site. In addition Multi-Site and Site Specific FSPs and QAPPS define the procedures to be followed.

8.0 IMPLEMENTATION OF WORK PROCESSES

8.1 The QAM, in cooperation with the Peoples Gas PC, and in conjunction with the Burns & McDonnell PC is ultimately responsible for ensuring that all projects and tasks involving environmentally related measurements are covered by an acceptable QAPP and that the plan is implemented. The work process and performance measurements are identified in the respective QAPP and are developed in accordance with the AOCs. Because environmental measurements must be of a known and acceptable quality, environmental data operations must be implemented in accordance with procedures outlined in QAPPs, approved by the Burns & McDonnell PC and Peoples Gas PC prior to implementation. Any and all deviations must be documented in writing.

8.2 The USEPA OSC or RPM evaluates the Program's effectiveness by means of the periodic reports, on-site visits and continuous communications. The monthly progress reports will include brief statements covering work status, work progress, preliminary data results, and evaluations made during the reporting period. In each progress report, any significant slippage of the work plan must be documented by the QAM and reported to the USEPA OSC or RPM, along with a proposed plan of slippage correction. The progress reports will be submitted to the USEPA OSC or RPM, as appropriate, as outlined in the respective AOCs.

8.3 The QAM, in conjunction with the Burns & McDonnell PC will confirm with the PCOM any planning deviations, either positive or negative, in order to ensure Peoples Gas' satisfaction is assured and goals and objectives of the program are met.

8.4 As an additional oversight measure, before implementation, the USEPA OSC or RPM will receive copies of proposed Scopes of Work for review and comment. If the USEPA OSC or RPM has concerns or requests changes, said changes will be addressed before finalization of any procurement activities.

8.5 Although work plans are prepared according to national and regional guidelines, work plans are living documents that are often subject to change. The implementation of activities described in these documents is critical. Thus, annual management systems reviews will be needed. Technical systems audit and the progress reports shall serve as the vehicles by which the QAM keeps the Program participants and the USEPA OSC or RPM appraised of activities to ensure that work is being performed according to the work plan.

8.6 All program-related procedures that directly impact Burns & McDonnell procedures shall be subject to an internal review process. Project participants shall review any developed SOPs that impact their project-related tasks.

8.7 SOPs are contained in the Multi-Site FSP and QAPP, and Work Plans will add, delete, or modify the list of SOPs as needed. These SOPs describe processes to ensure that work activities are in compliance with the SOPs and the general goals and objectives. The SOPs also include details on how to evaluate the need for changes, additional procedures and SOPs and roles and responsibilities. Roles and responsibilities are discussed in Section1 of the QMP.

9.0 ASSESSMENT AND RESPONSE

9.1 In order to ensure that the Program QA system is being implemented and is adequate, a series of technical and managerial reviews/audits are needed. The adequacy of the QA program and the degree to which it is being implemented shall be assessed by the following tools:

- Internal QAM reviews and audits;
- Performance evaluations;
- Technical reviews;
- Data quality assessments; and
- Corrective actions response.

Assessments will be conducted at least annually or more often when deemed appropriate by the QAM, the PC or USEPA.

9.2 These reviews/audits verify that the QMP and the QAPP are being implemented, detect and define problems so that immediate corrective action can be initiated, and assure that performance meets the Peoples Gas' and EPA's needs and objectives.

9.3 Peer review of activities associated with the QAPP will be undertaken by Burns & McDonnell QAM, Technical Advisors and/or Project Team members not directly associated with project work being reviewed or audited. This process ensures QA objectives are being met. Continuous communications with the USEPA, OSC or RPM via the Peoples Gas PC shall also determine if the Program QA Processes are supporting the program objectives.

9.4 If desired, the EPA may conduct reviews or audits of the Program to ensure that program objectives are met. The reviews will ensure that acceptable QA/QC activities and requirements are included, that proper QA was considered at the project's inception and that the project will be able to produce data of required quality in a reliable and cost effective manner. The review/audit shall be scheduled and conducted with the manager whose program is to be reviewed.

9.5 Preliminary findings will be discussed with the manager whose program was reviewed. A written report will be prepared by the personnel that conducted the review/audit and submitted to the QAM, Burns & McDonnell PC, and Peoples Gas PC within 45 days unless a different time frame is agreed upon in advance. Any corrective actions needed shall be included in the report. The QAM shall respond to the report and address any corrective actions within 45 days of receiving the report.

9.6 Effective oversight of any environmentally related data measurements and the QA process are the responsibility of each Program participants in order to ensure that quality is sufficient to meet the requirements of the settlement agreement; therefore, reviews will be initiated at the most appropriate level.

9.7 If review/audit findings indicate corrections are needed, the QAM will revise processes and SOPs as needed after consulting with the Burns & McDonnell PC and technical advisors, as appropriate, regarding appropriate corrective actions.

9.0 ASSESSMENT AND RESPONSE

9.8 Any corrective actions recommended and related follow-up shall be included in the semi-annual progress report to USEPA. If the QMP needs any major revisions as a result of significant recommended corrective actions, the QMP shall be revised in a timely manner as specified by EPA QA/R-2 and submitted to the EPA Region 5 OSC or RPM, as appropriate, for review and approval. The Burns & McDonnell PC and QAM have the authority to suspend operations that are a deviation from the QMP, QAPP, and the Workplan when erroneous data would be generated and/or there is risk or injury to the environment or human health.

10.0 QUALITY IMPROVEMENT

10.1 The development of continuous quality improvement leads to the development of a better and more responsive quality system. The Program is set up so that program participants are encouraged to provide feedback to the Burns & McDonnell PC and QAM regarding program improvement. Meetings are held with the participants and may include subcontractor's representatives in the process to exchange ideas and identify new ways to accomplish tasks and produce better products. The QAM is responsible for ensuring that accepted ideas and recommendations for improvement in the QA process are captured and documented. The QAM is responsible for ensuring that recommended program changes are investigated and if acceptable, approved and implemented.

10.1.1 The QAM is responsible for reviewing on an on-going basis all recommended changes that are integrated into the QA process. The program participants are responsible for reviewing and evaluating all new changes into the program. The USEPA OSC or RPM can also recommend program and QA changes that will improve the effectiveness of the program.

10.1.2 Any significant new additions or changes in the QA process must be recorded, as appropriate, and incorporated into the QMP and forwarded to the USEPA OSC or RPM via the Peoples Gas PC for approval.

10.2 Adverse conditions or concerns in the Program are identified through semi-annual reviews by the PCOM, annual or semi-annual reviews by the USEPA OSC or RPM, and on an on-going basis by Program participants. After considerations and discussions, corrective actions will be implemented immediately.

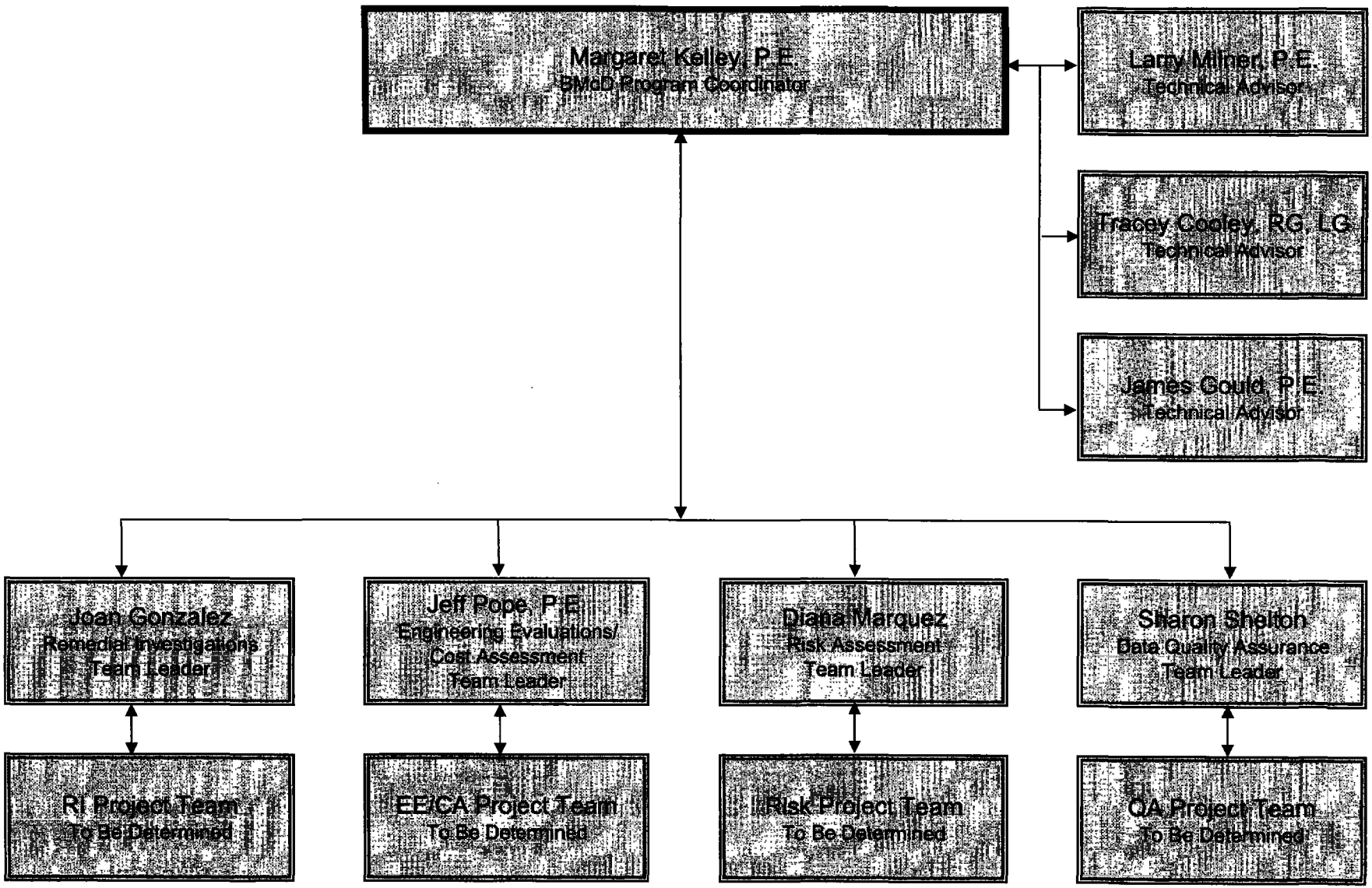
10.2.1 Corrective actions will identify the causes of the problem(s), determine if the problem(s) is (are) unique or have more generic implications and recommend procedures to prevent reoccurrence of said problem(s). The QAM is responsible for ensuring that corrective action has been implemented and is effective in preventing reoccurrence of any problem.

10.2.2 If SOPs need revision, the appropriate SOP will be revised and shared with the impacted project participants. If necessary, additional QA training will be scheduled.

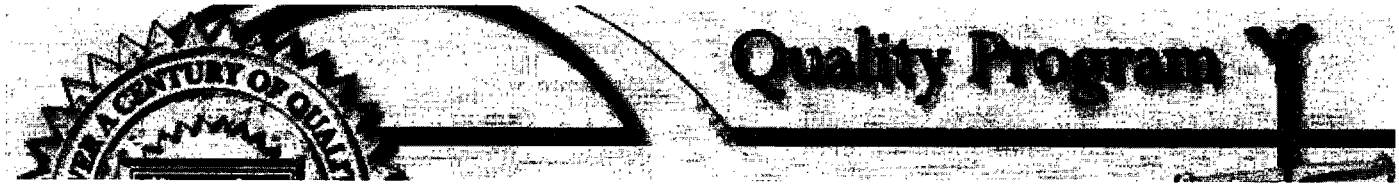
10.2.3 If samples are collected and hold time is exceeded, although not anticipated, additional replacement sample media may have to be collected. This determination will be made after a review of the DQOs and the adequacy of the data both with and without additional sample collection.

Figure 1
Organizational Chart

Burns & McDonnell
Organizational Flow Chart



APPENDIX A
Burns & McDonnell Quality Assurance/Quality Control



"Quality Driven" is one of our core values as a company in our mission to make our clients successful. The Burns & McDonnell Quality Program strives to maintain a balance between Quality Assurance and Quality Control.

"Quality Assurance" comprises all our efforts to "engineer" quality into Burns & McDonnell's production processes through consistent and effective use of training, standards, tools, and resources.

"Quality Control" consists of all activities performed to verify and check our concepts and cor project documents or "deliverables.

"Requirements and guidance for the Quality Program are set forth in various company docume and standards, including:

- Quality Control Manual
- Report Preparation Guide
- Drafting Standards Manual
- Construction Documents and Specifications Manual.

These manuals include procedures established to monitor and record the completion of Quality Program requirements, as well as standard approaches for building in project quality as we go Separately, a quality improvement program focuses on ways to continuously increase our capa and proficiency in what we do.

Pocket Guide to Quality Control

Design Project Quality Control

Report Project Quality Control

Quality Improvement Program

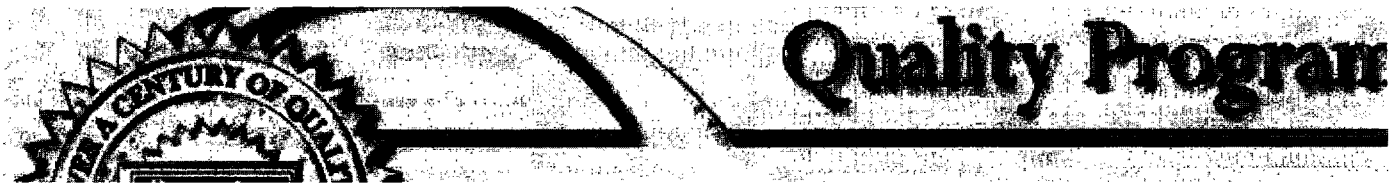
Project QA/QC Audits

Quality Review Department

Office Forms and Templates

Company management is committed to the Quality Program. Success depends on cooperatior determination of all employee-owners in making the program work. It requires recognition that program is necessary and is for our benefit, as well as the clients we serve.

The purpose of this site is to provide a summary of the various quality control procedures, links administrative forms for documenting design and report project reviews, insights into quality improvement efforts, and description of the corporate Quality Review Department.



Home

Pocket Guide to Quality Control

Design Project Quality Control

Report Project Quality Control

Quality Improvement Program

Project QA/QC Audits

Quality Review Department

Office Forms and Templates

Pocket Guide to Quality Control Program

The "Pocket Guide" developed to provide a concise summary of Burns & McDonnell's Quality Control processes for both design and report/study projects. The "Pocket Guide" has been sized and reproduced in hardcopy to fit in the standard Franklin Planner, and copies are available from Quality Control Directors in the Global Practices and Regional Offices.

An electronic version is also available from the Quality Control Directors for downl personal digital assistants (PDAs), and the "Pocket Guide" can be printed directly web page.

Design Project Quality

Home

Pocket Guide to Quality Control

Design Project Quality Control

Report Project Quality Control

Quality Improvement Program

Project QA/QC Audits

Quality Review Department

Office Forms and Templates

Design projects proceed in a series of logical steps, from initial project staffing to sealing of the finished documents through various services during the constructio The project staff needs to become a team with a common purpose and goals in m provide the highest quality professional services consistent with the client's expec assure quality when each team member controls the quality as the work progress is "engineered in" through judicious use of tools and resources, systematic action attentive planning.

Standards and procedures to follow for successful project planning and design ph as Quality Assurance during the construction phase, are discussed in the Quality Manual (Chapter 10 of the Company Policies and Procedures). A written project p recommended for documentation of the planning for each Burns & McDonnell proj Appendix A of the Quality Control Manual defines six steps in the Quality Review p required to achieve the desired level of Quality Assurance for design and construc projects.

Templates for the following documents and forms are available in Microsoft Word computer connected to the Burns & McDonnell network:

- Design Project Program
  - Project Program for Design Projects (PDF)

- Design Project Quality Control
  - TS-C-22 Memo to Project Manager – Assignment of Review Team (PDF)
  - TS-C-23 Memo to Review Team – Assignment to Review Team (PDF)
  - TS-C-3 Report of Completion, Q1 Review – Project Summary (PDF)
  - TS-C-18 Report of Completion, Q1 Review – Individual Item (PDF)
  - TS-C-4 Report of Completion, Q2 Review – Project Summary (PDF)
  - TS-C-19 Report of Completion, Q2 Review – Individual Item (PDF)
  - TS-C-5 Report of Completion, Q3 Review – Designer's Review (PDF)
  - TS-C-6 Report of Completion, Q4 Review – Review Team's Review (PDF)
  - TS-C-17 Verification of Completion, Release for Use (PDF)
  - TS-C-24 Q6 Review Log-In Form (PDF)

The PDF link following the template name will open the blank form for viewing and

To access these templates, open Microsoft Word, click on the "File" option standard toolbar in the upper left corner of the screen. Select "New" from On the right side of the screen, under the "Templates" heading, select the computer..." link. In the window that opens, click on the tab titled "BMCD I Forms." On this tab, there are icons for the templates for each of the stan and documents listed above. Each template can be opened by double-click respective icon. The Design Project Program and the Q-6 Review Log-In Form contain form fields that can be tabbed through. When each of the ot and documents are opened, a dialogue window opens for entering basic in

The following additional Quality Review and project forms are available for viewing printing using the PDF link following the document name.

- Design Project Quality Control
  - TS-C-7 Report of Q6 Review – Contract Documents (Master Format 1
  - TS-C-7A Report of Q6 Review – Contract Documents (Master Format (PDF)
  - TS-C-8 Quality Review Assignments (PDF)

- TS-C-10 Order and Authorization for Application of Professional Seal
- TS-C-10A Order and Authorization for Application of Professional Sea Required (PDF)
- TS-C-11 Report of Completion, Q5 Review – Specifications Review (PI
- TS-C-25 Statement of Quality Program Conformance (PDF)

Home

Pocket Guide to Quality Control

Design Project Quality Control

Report Project Quality Control

Quality Improvement Program

Project QA/QC Audits

Quality Review Department

Office Forms and Templates

Reports and Studies Quality

Standards and procedures for achieving Quality Assurance and Quality Control in reports, studies, and other project deliverables are discussed in the Report Prepar (Chapter 13 of the Company Policies and Procedures). Quality Assurance includes we take during preparation to give each document a uniform Burns & McDonnell " *an appealing style, and to streamline production.*

Templates for the following forms/documents are available in Microsoft Word on e computer connected to the Burns & McDonnell network:

- Report Project Program
  - Project Program for Reports (PDF)
- Report Cover
  - Standard Cover (PDF)
- Report Index and Certification
  - Index and Certification Page (PDF)
- Report Style Formats (two templates are available for each style; one with au Table of Contents, the other without):
  - Decimal Style (PDF)
  - Block Style (PDF)
  - Outline Style (PDF)
- Report Figure Style Borders (For CAD versions, See Section 2 of Drafting Star Manual):
  - 8½" x 11" (Portrait) (PDF)
  - 210mm s 297mm (Portrait) (PDF)
  - 11" x 8½" (Landscape) (PDF)
  - 297mm x 210mm (Landscape) (PDF)
  - 11" x 17" (Landscape) (PDF)
  - 297mm x 420mm (Landscape) (PDF)
- Report Quality Control:
  - Memo to Project Manager – Assignment of Review Team (PDF)
  - Memo to Review Team – Assignment to Review Team (PDF)
  - Q-1R Preliminary Review (PDF)
  - Q-2R Intermediate Review (PDF)
  - Q-3R Final Review (PDF)

The PDF link following the template name will open the blank form for viewing and

To access these templates, open Microsoft Word, click on the "File" option on the s toolbar in the upper left corner of the screen. Select "New" from the menu. On the of the screen, under the "Templates" heading, select the "On my computer..." link. window that opens, there are two new tabs titled "BMCD Report Project Forms" an Report QC Forms". On these tabs, there are icons for the templates for each of the report forms, styles, borders, and documents, as well as the quality review forms l listed above. Each template can be opened by double-clicking on the respective ico 1R, Q-2R, and Q-3R forms contain form fields that can be tabbed through. When t related to the Review Teams are opened, a dialogue window opens for entering ba information. All the other templates are free form text document files.

Quality Program

Quality Improvement Program

"Quality Assurance" measures by necessity include an ongoing quality improveme
Specific goals proposed by each global practice and regional office are called "Qua
Improvement Initiatives," and are intended to consider all elements of "Quality As
and "Quality Control" for strengthening and increasing capabilities and proficiency
the Quality Program features are:

Home

Pocket Guide to Quality Control

Design Project Quality Control

Report Project Quality Control

Quality Improvement Program

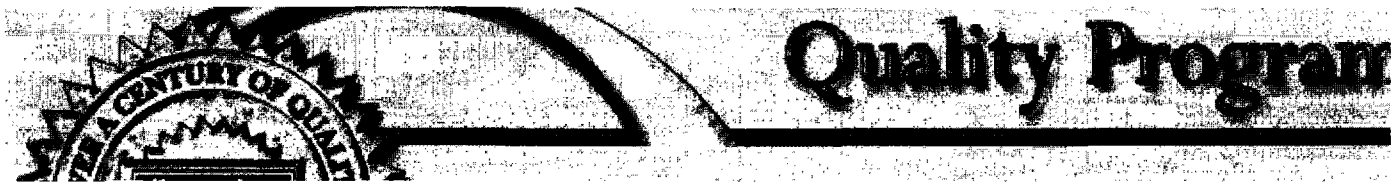
Project QA/QC Audits

Quality Review Department

Office Forms and Templates

Improvements to the Quality Program can provide considerable benefits to Burns &
employee-owners and the clients we serve. Some of these benefits are illustrated


Desired Results
Continuously Improving Services
Avoidance of Problems & Lawsuits
Customer Satisfaction
Quality Program
Financial Success
Reputation for High Quality Service
Employee Professional Satisfaction & Growth



Home

Pocket Guide to Quality Control

Design Project Quality Control

Report Project Quality Control

Quality Improvement Program

Project QA/QC Audits

Quality Review Department

Office Forms and Templates

Quality Program Audits

Audit procedures have been established to verify that project production activities Global Practice or Regional Office are performed in line with requirements of the C Policies and Procedures. The audit goals are to strengthen the Quality Program by determining extent of implementation, verifying conformance and noting exceptions, and making positive recommendations for changes and improvements

The audit team consists of the corporate Director of Quality Assurance, the Global Regional Office Quality Control Director, and one or more auditors.

The audit proceeds with reviews and discussions of the Quality Program Audit Che general project administrative procedures including filing, and typical project deliv prepared by the Global Practice or Regional Office. Interviews are held individually project managers in charge of report, design, and design-build projects selected f listing of currently active projects. Project documentation is reviewed. In addition are held with department managers/section leaders.

A report of audit is completed that details audit findings, and requests responses Practice or Regional Office management on findings that require remedies or impr

The following documents are the principal items for input and discussion upon wh is based:

- **Project Manager's Audit Questionnaire**
  - Design Project (pdf)
  - Report/Study Project (pdf)
- **Global Practice/Regional Office Audit Checklist**
  - Design and Reports (pdf)

Home

Pocket Guide to Quality Control

Design Project Quality Control

Report Project Quality Control

Quality Improvement Program

Project QA/QC Audits

Quality Review Department

Office Forms and Templates

Quality Review Department

The corporate Quality Review Department is organized to perform a final biddability/constructability review of contract documents prior to issue for bid or f construction. This multidiscipline review includes a check for system interferences conformance to standards, coordination between specifications and drawings, anc coordination between contracts on multicontract projects. This review is termed tl Quality Control Review," and is required on all construction and equipment purch documents, addenda, and revisions after contract award. Additional details are co the Company Quality Review Manual.

Quality Review Department Organization

Quality Review Department Manager -	David Rogers	x4323
Administrative Assistant -	Gail Lucas	x7184
Architectural and Structural Review -	Joe Kelty	x7183
Civil Review-	Dave Anderson	x7189
Electrical Review -	Charlie Turner	x7194
Mechanical and Process Review -	Bob McMenemy	x7185
Contractual - Legal and Division 1 Review -	Dave Rogers	x4323
Report Preparation Review -	Brian Farber	x3246

The Q6 Review Log-in Form TS-C-24 is submitted at the time construction contrac equipment purchase contracts, and revisions to these documents are submitted to Review Department. A template for Form TS-C-24 is available in Microsoft Word o computer connected to the Burns & McDonnell Network. The link below will open tl form for viewing and printing.

- TS-C-24 (P) Q6 Review Log-In Form (PDF)

Office Forms and Templates

As a primary form of contact between Burns & McDonnell and the Client or with o external parties, the appearance, organization, and neatness of correspondence convey an image of the Company to others. Standards for all such written corresp are contained in the Company Correspondence Manual, which is Chapter 21 of the and Procedures.

Home

Pocket Guide to Quality Control

Design Project Quality Control

Report Project Quality Control

Quality Improvement Program

Project QA/QC Audits

Quality Review Department

Office Forms and Templates

To further encourage and emphasize standardization and a uniform, quality appe templates are available for project letters, transmittals (ie, such as for facsimiles) memoranda, and other commonly used office forms, including forms for project administration mentioned in the Company Quality Control Manual.

•Standard letter, memoranda, and other general office forms
Templates for the following forms/documents are available in Microsoft Word on e computer connected to the Burns & McDonnell network:

Templates differentiated by office (corresponding address and phone numbers):
- Letterhead
- Fax (PDF)
- GCO-12 (Technical Submittal) (PDF)
- GCO-16 (General Submittal) (PDF)

Templates for general use:
- Letter – No letterhead
- Memorandum – Logo
- Memorandum – No logo
- Telephone Call Memorandum (PDF)
- CSD-46 – Change Order Form (PDF)
- CWP Order Form (PDF)

The PDF link following the template name will open the blank form for viewing and

To access these templates, open Microsoft Word, click on the "File" option on the s toolbar in the upper left corner of the screen. Select "New" from the menu. On the of the screen, under the "Templates" heading, select the "On my computer..." link. window that opens, click on the tab titled "BMCD General Office Forms." On this ta icons for the templates for each of the standard forms and documents listed above template can be opened by double-clicking on the respective icon. The CWP Order the Change Order Form contain form fields that can be tabbed through. When eac other forms and documents are opened, a dialogue window opens for entering bas information.

•Project Administration Forms
Use the following links to open and print project administration forms.
- GCO-6 Bid Documents Issue Request (PDF)
- GCO-11 Request and Receipt for Partial Contract Drawings (PDF)
- GCO-81 Acknowledgement of Access to Geotechnical Information Files (PDF)
- GCO-50N Subsurface Information Receipt (PDF)
- AS-R-5 Technical Submittal Log (PDF)
- TS-S-3 Product Evaluation Questionnaire (PDF)
- TS-S-4 Product Information Request (PDF)
- AS-R-3 Worksheet for Processing Contract Drawings to "Conforming to Const Records" (PDF)
- AS-R-8 Filing Information (PDF)

•Specifications

Use the following links to open and print specifications forms.
- Order of Construction Contract Documents Diagram (PDF)
- TS-C-15 Specification Log (PDF)
- TS-C-16 Request for Specification Change (PDF)
- TS-C-30 Export of Electronic "Word" Files to Others (PDF)

•Submittal Information Block

The Submittal Information Block (SIB) should be provided to the contracting pa placement on Submittals being transmitted to the reviewing party. There are se for use according to the project delivery method employed. On conventional de: build where the submitting and reviewing parties are "Contractor" and "Enginee common SIB is used for both furnish and construct (FC) and procurement contr

There are two SIBs used for Burns & McDonnell design-build project delivery. O construction contracts ("Subcontractor" and "Contractor"), and the other is use purchase of equipment and materials ("Supplier" and "Purchaser").

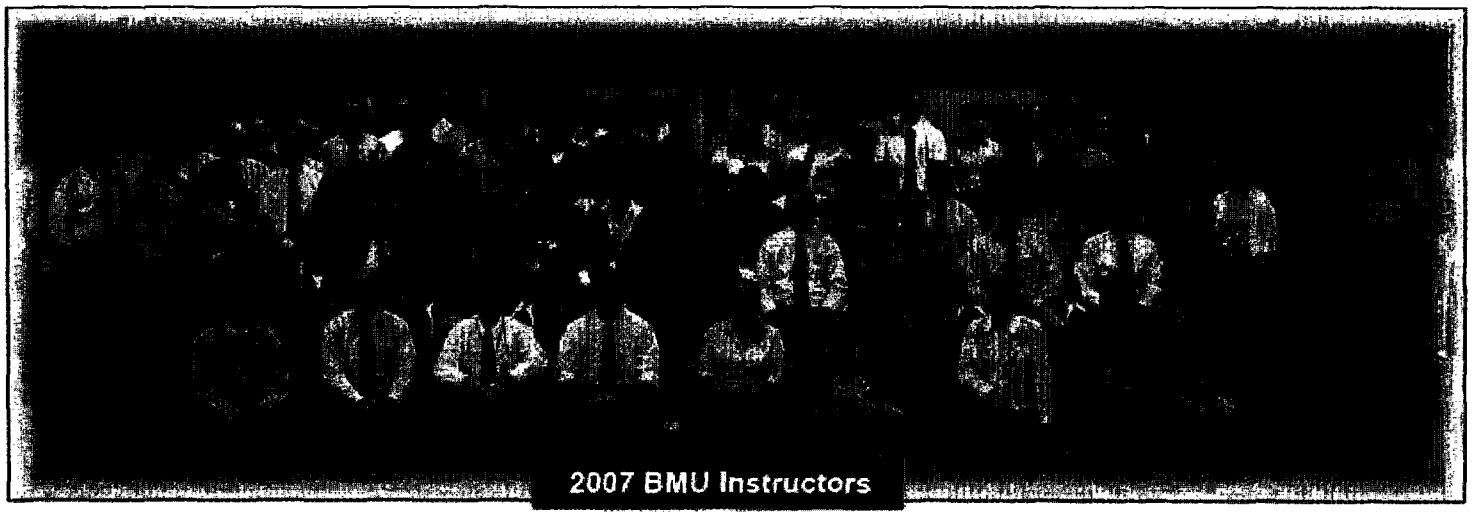
The three SIBs are "Word" files with form fields. "Project and Contract Informat can be completed as appropriate and the file converted to a ".pdf" using Adobe The ".pdf" can be cropped using the "Cropping" tool in "Advanced Editing" that i in Adobe Acrobat. The converted ".pdf" file can then be saved as a ".png" graph sent to the contracting party electronically for direct placement on CAD drawing Submittals. Likewise, these SIBs are intended to be placed on electronic or pap Submittals that have no SIB when received by Burns & McDonnell for review.

- Conventional Design-Bid-Build (Contractor-Engineer)
- Design-Build Construction (Subcontractor-Contractor)
- Design-Build Purchasing (Supplier-Purchaser)

APPENDIX B
Burns & McDonnell Training

Burns & McDonnell UNIVERSITY

Burns & McDonnell University has been operating for more than 10 years. The university has been a source of technical, business, and ethics education to all employee-owners.



2007 BMU Instructors

Career Development
Contacts
Course Materials
Instructor Tools
Off-Site & Tuition Assistance
On-Site Training Process
Learning Management System (LMS)
Mortar Board
Additional Resources
<< Home

Learning Management System (LMS)

Burns & McDonnell University courses are administered through the **Learning Management System (LMS)**, which can be accessed through MIS/SSO. The LMS is designed to:

- Centralize the training and education function
- Fulfill data privacy and protection requirements
- Serve Global Practice needs
- Enhance learner independence
- Provide for unique curricula needs
- Facilitate licensing compliance

LMS How To
Click here for instructions on frequently used Oracle Learning Management System features including: finding a class and enrolling in it, taking an online class, using the Education & Training Shared Calendar in MS Outlook, and printing your transcript.

Learning Instructor Self-Service - When you are assigned to teach a class in Burns & McDonnell University you can see who is enrolled, update enrollments, and view past booking history (information on classes you were previously booked to teach). This document shows you how.

LMS Training Videos
A series of self-paced training videos are available to assist you in using the LMS. Burns & McDonnell University believes in the concept of life-long learning. As such, you will progress through your journey no longer as just a student, but as a *learner*.

- How to manage your training
- How to manage your employee's training
- How to manage your learner's training

APPENDIX C
Burns & McDonnell Procurement

Procurement Department

The responsibility of the Procurement Department is to add value by providing professional project procurement services and assistance procurement of materials, equipment and services, with the objective that they will be available at the time, place, quantity, quality, and p consistent with the needs of Burns & McDonnell and its Clients.

Information	Forms
Supplier Qualification Guidelines	Contact the Procurement Department to inquire about specific procurement forms.
MIS Supplier Lookup Tool	

Burns & McDonnell Firm Wide Supplier Agreements

Please contact Gary Dellesky – Manager of Procurement – Extension 3908 with any questions or comments regarding information on Supplier Agreements for Engineered Equipment or Professional Consulting Service as outlined below.

Engineered Equipment

CCA 20063.0 Holophane
CCA 513-331-001 Emerson Process Management
CCA 18024.0 General Electric (GE)

Professional Consulting Services

MSA 17188.0 The Titan Corporation
MSA 1793.0 Corrpro Companies
MSA 21497.0 Coffeen Fricke & Associates
MSA 26997 Paul W. Graham AHC
MSA 27801 Conam Inspection & Engineering Services
MSA 28075 Zaxon Inc
MSA_7406 Schumacher Consulting LLC (no link at this time)

Please contact Brian Frerking – Assistant Manager of Procurement – Extension 3198 with any questions or comments regarding information on Corporate Agreements Services/Goods as outlined below.

Corporate Agreements Service/Goods

Contract Number	Category	Supplier
22820	Other Services	AFFILIATED AUCTIONEERS
13171	Travel Services	ALL ABOUT TRAVEL INC
15970	Reprographic Services	AMERICAN MICRO CO
12129	Software	AUTODESK INC
24071	Communication Services	CINGULAR WIRELESS
23363	Office Supplies	CORONADO BINDING SYSTEMS INC
23748	Office Supplies	CORPORATE EXPRESS
23087	Field Office	DS WATERS OF AMERICA LP
23295	Travel Services	FRONTIER AIRLINES
15969	Relocation Services	FRY-WAGNER INC
23307	Office Furniture	HERMAN MILLER INC
17926	Office Supplies	HY-VEE FOOD STORES INC
23762	Equipment Rental	IN-SITU INC
24473	Software	INTERGRAPH CORP
15013	Travel Services	KANSAS CITY LIMOUSINE LLC
12189	Photography Services	MANGINELLI PRODUCTIONS
16852	Office Supplies	MID AMERICA LAMINATING
23686	Advertising Specialties	MID-AMERICA MERCHANDISING INC
18423	Travel Services	MIDWEST AIRLINES INC
23296	Travel Services	NORTHWEST AIRLINES INC

11476	Photography Services	PHIL LICATA PHOTGRAPHY LLC
14738	Field Office	RESUN LEASING INC
16529	Consulting	ROLTA INTERNATIONAL INC
13129	Communication Services	SBC GLOBAL
7406	Consulting	SCHUMACHER CONSULTING LLC
13596	Equipment Rental	SCOTT SPECIALTY GASES INC
21657	Audio / Video Equipment	SKC COMMUNICATION PRODUCTS INC
13550	Software	SOFTWARE SPECTRUM
13800	Travel Services	THE HERTZ CORPORATION
23269	Travel Services	UNITED AIRLINES
8297	Communication Services	VERIZON SELECT SERVICES INC
11167	Field Office	WASTE MANAGEMENT INC
15339	Reprographic Services	WESTERN BLUE PRINT CO LLC
13468	Office Supplies	WOLF CAMERA
23747	Office Supplies	XPEDX - KANSAS CITY
23913	Safety Supplies	ZINK SAFETY EQUIPMENT CO
	Software	MICROSOFT
	Software	ADOBE

APPENDIX D
Burns & McDonnell Computer Services

Computer Services

For Help with Computer Problems

For help with computer hardware or software problems, including password and programming needs, please call the I Service Desk at 816-822-3900 x5007 or send an e-mail to troublecalls@burnsmcd.com.

To Request Hardware or Software

To request hardware or software, please contact your global practice or regional office computer coordinator for the necessary request forms. IT IS ILLEGAL, UNETHICAL, AND AGAINST COMPANY POLICY TO COPY SOFTWARE-PLEASE DO NOT DO IT!

To check out a laptop or other piece of equipment, please click Ops Equipment for Checkout.pdf for a list of available equipment. To reserve a piece of equipment, please send an e-mail to ITequipmentcheckout@burnsmcd.com.

Data Backups: Archive & Restore Request Forms & Reports

Archive & Restore Request Forms

Search Archive Detail Reports —Descriptive Search
Search Archive Sessions Reports — Descriptive Search
Search Archive Detail Reports —Tape List
Search Archive Sessions Reports —Tape List

Archive Reports

Division Archive Tape Numbers

Autopilot Reports

Moving Computer Equipment

The IT department needs to know where our computer resources are at all times. We prefer that you not move compu equipment (except portables or laptops) yourself. To request an equipment move for one employee, please call the IT Service Desk at 816-822-3900 x5007 or send an e-mail to troublecalls@burnsmcd.com. To request an equipment mo several employees, please call or send an e-mail to Nancy Clifford.

Recycling Computer Equipment

Computer Recycling in Regional & Field Offices

Setting Up a Field Site

To request help with setting up a field site, including ordering a trailer, furniture, voice and data lines and equipment, a printers/plotters, please click Field Site Setup Request and follow the instructions on the first page.

Newsletter

BMCD.DAT IT Newsletter

Training

Office 2003 Online Training

Tips (i.e. emails, work efficiency, computer functions)

Printing PDF and Word Files

You may not know that the same PDF file printed to two different printers may create an image that is slightly differen most cases the differences will be minimal, but if you need the highest level of consistency when printing PDF docum your best bet is to print all documents from the same computer to the same printer with the same paper. The exact im created by a PDF file depends on the printer's characteristics and the specific printer driver loaded on your computer. final image on the paper may be different either in overall physical size, font size and/or density. The paper being use also change the density of the final image. Similar problems can occur when printing in other products, such as Micro Word. Differences in characteristics and settings can result in changes to the number of characters on a line, which c result in pagination changes when printing.

Saving Paper when Printing Expense Reports

When you print an expense report, an additional page that is blank may be printed. However, if you click your cursor anywhere on the area of the expense report before you print, that extra page will not be printed.

Making an Opened E-mail Look Unopened

Afraid you'll forget to later tend to an e-mail you've already opened? Simply highlight a previously opened e-mail, righ and select "Mark as Unread" to give it the appearance of an unopened e-mail in your mail box or folder.

Moving to Second Line in Excel Cell

In Excel, to move your cursor to the next line within the same cell, use Alt + Enter.

Setting a Voicemail Temporary Greeting

Most people do a great job of changing their voicemail greeting when they are going to be out of the office, but somet forget to turn them off or change them when they return. To avoid that hassle, use the Temporary Greeting feature in voicemail to set an expiration date and change back to your usual greeting. From the main menu in voicemail: Enter 8 Mailbox Commands, 2 for Greetings, 3 for Temporary Greeting. When you finish recording your temporary greeting, p as usual to finish recording then Enter 9 to enter the expiration date. The voice prompts will walk you through it easily you can go on vacation without giving it another thought.

Disconnecting Voicemail Before Returning to a Conference/Link Phone Call

Have you ever been on the phone with a client and wanted to link another person into the conversation? If you reach other person's voicemail and want to return to your client, do not press the "Conference/Link" button. It will simply brir client on with the voicemail still playing. The trick is, once the voicemail announcement comes on, dial 8 3 on the tele keypad. It will immediately disconnect the voicemail and return you to your client's call.

Frequently Asked Questions

Do I Turn off my Computer at Night?

Yes, only after you select Shutdown from the Windows Start button at the bottom left of your screen and wait for the message that says it is safe to turn off the machine.

At one time we suggested that you leave the computer and monitor on. The primary reason was that industry mainter statistics indicated that more component failures occurred at power-up than at any other time. However, recent statist indicate that the newer equipment that we run today should not have this problem and we save energy costs! Also, fo results, shut down peripheral items, such as monitors, printers, modems, after shutting down the computer and when restarting the equipment, turn on the monitor and any other peripheral items before turning on the computer.

Shutting the equipment down will also help us with some machines that seem to develop problems when they have b used for an extended period without being shut down.